Amendment to the Claims:

Please amend the claims as follows:

1. (Currently Amended) A method of predistorting a signal, said method comprising:

providing a current input sample and at least a one time spaced input sample;

using said current input sample to produce a first sample output value dependent on said current input sample and independent of said time spaced input sample;

using said time spaced input sample to produce a second sample output value ~~producing sample output values each of which is dependent on one of a plurality of time spaced input samples and~~ dependent on said time spaced input sample and independent of said current input sample~~any other time spaced input sample~~; and

combining at least said first and second sample output values to produce a predistorted signal.

2. (Original) The method of claim 1 comprising:

retaining successive input signal samples as said time spaced input samples.

3. (Currently Amended) The method of claim 1 comprising the steps of~~wherein producing each of said sample output values includes~~:

using a first absolute value of said current input sample as a pointer to a first look-up table to produce a first intermediate value;

multiplying said intermediate value and said current input sample to produce said first sample output value;

using a second absolute value of said time spaced input sample as a pointer to a second look-up table to produce a second intermediate value; and

multiplying said intermediate value and said time spaced input sample to produce said second sample output value ~~taking an absolute value of a time spaced sample;~~

~~using said absolute value as a pointer to a look-up table to produce an intermediate value; and~~

~~multiplying said intermediate value and said time spaced sample~~.

4. (Original) The method of claim 3 wherein said combining including: adding said sample output values.

5. (Original) The method of claim 1 wherein said predistortion circuitry produces said predistorted signal, given a current input sample u_n, according to:

$$= u_n \sum_{k=0}^{K_0} c_{0k} |u_n|^k + u_{n-1} \sum_{k=0}^{K_1} c_{1k} |u_{n-1}|^k + \ldots + u_{n-L} \sum_{k=0}^{K_L} c_{Lk} |u_{n-L}|^k ,$$

where L is the maximum sample delay.

6. (Currently Amended) A predistortion system comprising:

predistortion circuitry adapted to provide a current input sample and at least a one time spaced input sample, use said current input sample to produce a first sample output value dependent on said current input sample and independent of said time spaced input sample, use said time spaced input sample to produce a second sample output value~~produce sample output values each of~~ which is dependent on ~~one of a plurality of~~ said time spaced input samples and independent of ~~any other time spaced~~ said current input sample, and combine at least said first and second sample output values to produce a predistorted signal.

7. (Original) The system of claim 6 wherein said predistortion circuitry configured to retain successive input signal samples as said time spaced input samples.

8. (Currently Amended) The system of claim 6 wherein said predistortion circuitry configured to use a first absolute value of said current input sample as a pointer to a first look-up table to produce a first intermediate value, multiply said intermediate value and said current input sample to produce said first sample output value, use a second absolute value of said time spaced input sample as a pointer to a second look-up table to produce a second intermediate value, and multiply said intermediate value and

said time spaced input sample to produce said second sample output value~~, for producing each of said sample output values, to take an absolute value of a time spaced input sample, to use said absolute value as a pointer to a look-up table to produce an intermediate value, and to multiply said intermediate value and said time spaced input sample~~.

9. (Original) The system of claim 8 wherein said predistortion circuitry adapted to add said sample output values.

10. (Original) The system of claim 6 wherein said predistortion circuitry configured to produce said predistorted signal, given a current input sample u_n , according to:

$$= u_n \sum_{k=0}^{K_0} c_{0k} |u_n|^k + u_{n-1} \sum_{k=0}^{K_1} c_{1k} |u_{n-1}|^k + \ldots + u_{n-L} \sum_{k=0}^{K_L} c_{Lk} |u_{n-L}|^k ,$$

where L is the maximum sample delay.